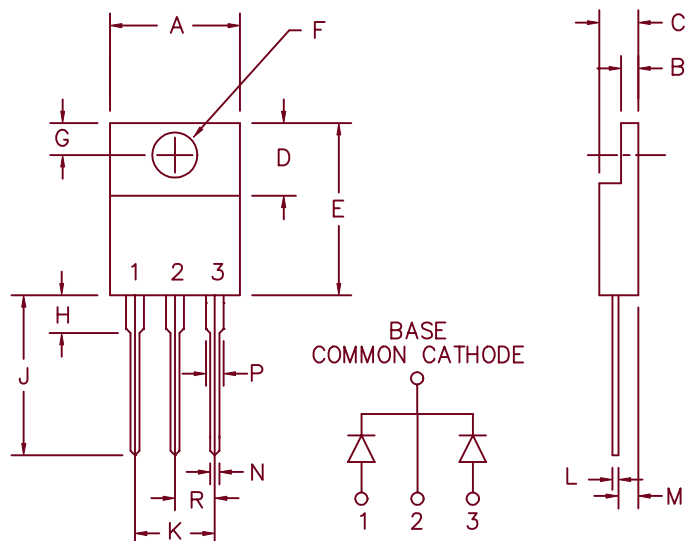


# 30 Amp Schottky Rectifier

## FST3230



Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	.390	.415	9.91	10.54	
B	.045	.055	1.14	1.40	
C	.180	.190	4.57	4.83	
D	.245	.260	6.22	6.60	
E	.550	.650	13.97	16.51	
F	.139	.161	3.53	4.09	Dia.
G	.100	.135	2.54	3.43	
H	---	.250	---	6.35	
J	.500	.580	12.70	14.73	
K	.190	.210	4.83	5.33	
L	.014	.022	.357	.559	
M	.080	.115	2.03	2.92	
N	.015	.040	.380	1.02	
P	.045	.070	1.14	1.78	
R	.090	.110	2.29	2.79	

### PLASTIC TO-220AB

Microsemi Catalog  
Number

FST3230

Repetitive Peak  
Reverse Voltage

30V

Transient Peak  
Reverse Voltage

30V

- Schottky barrier rectifier
- Guard ring for reverse protection
- Low power loss, high efficiency
- High surge capacity
- $V_{RRM}$  30 Volts

### Electrical Characteristics

Average Forward Current per pkg.  
Average Forward Current per leg  
Maximum Surge Current per leg  
Max. Peak Forward Voltage per leg  
Max. Peak Forward Voltage per leg  
Max. Peak Reverse Current per leg  
Max. Peak Reverse Current per leg  
Typical junction capacitance per leg

$I_{F(AV)}$  30 Amps  
 $I_{F(AV)}$  15 Amps  
 $I_{FSM}$  250 Amps  
 $V_{FM}$  0.46 Volts  
 $V_{FM}$  0.52 Volts  
 $I_{RM}$  100 mA  
 $I_{RM}$  1.5 mA  
 $C_J$  780 pF

$T_C = 113^\circ\text{C}$ , Square wave,  $R_{\theta JC} = 1.5^\circ\text{C/W}$   
 $T_C = 113^\circ\text{C}$ , Square wave,  $R_{\theta JC} = 3.0^\circ\text{C/W}$   
8.3ms, half sine,  $T_J = 175^\circ\text{C}$   
 $I_{FM} = 15\text{A}$ ,  $T_J = 150^\circ\text{C}^*$   
 $I_{FM} = 15\text{A}$ ,  $T_J = 25^\circ\text{C}^*$   
 $V_{RRM}$ ,  $T_J = 125^\circ\text{C}^*$   
 $V_{RRM}$ ,  $T_J = 25^\circ\text{C}$   
 $V_R = 5.0\text{V}$ ,  $T_J = 25^\circ\text{C}$

\*Pulse test: Pulse width 300  $\mu\text{sec}$ . Duty cycle 2%

### Thermal and Mechanical Characteristics

Storage temp range  
Operating junction temp range  
Max thermal resistance per leg  
Max thermal resistance per pkg  
Mounting torque  
Weight

$T_{STG}$   
 $T_J$   
 $R_{\theta JC}$   
 $R_{\theta JC}$

$-55^\circ\text{C}$  to  $+150^\circ\text{C}$   
 $-55^\circ\text{C}$  to  $+150^\circ\text{C}$   
 $3.0^\circ\text{C/W}$  Junction to case  
 $1.5^\circ\text{C/W}$  Junction to case  
15 inch pounds maximum (6-32 screw)  
.06 ounces (1.8 grams) typical

# FST3230

Figure 1  
Typical Forward Characteristics – Per Leg

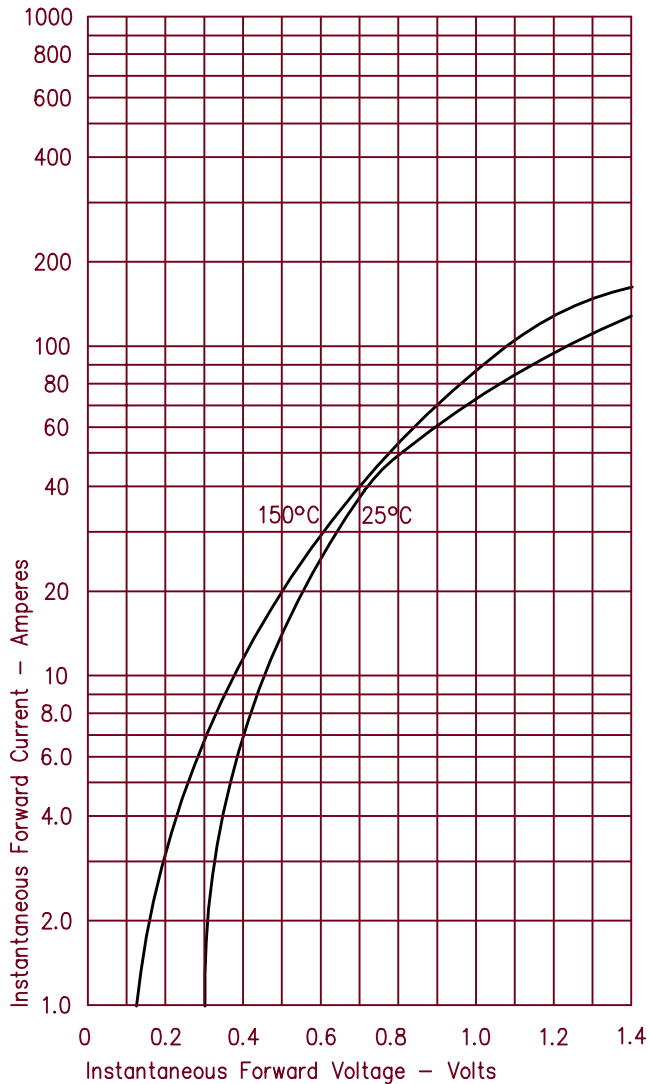


Figure 3  
Typical Junction Capacitance – Per Leg

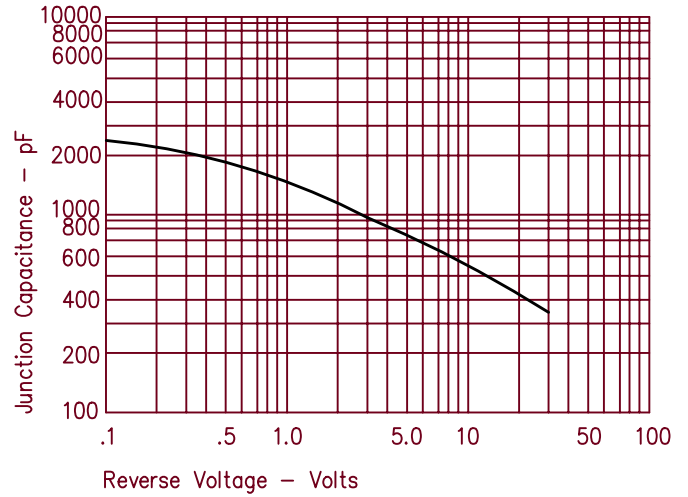


Figure 4  
Forward Current Derating – Per Leg

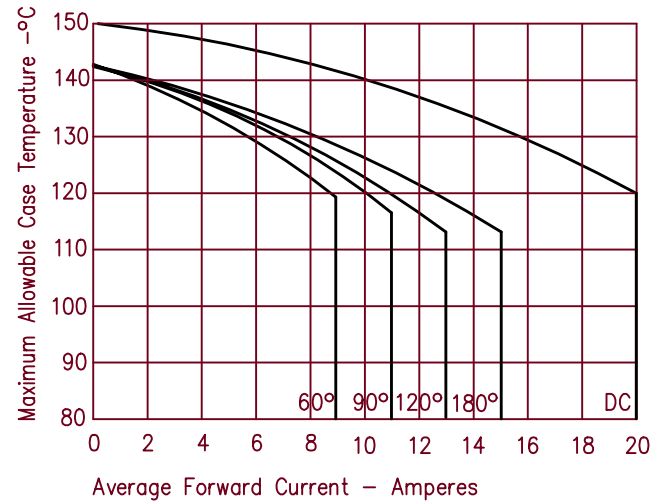


Figure 2  
Typical Reverse Characteristics – Per Leg

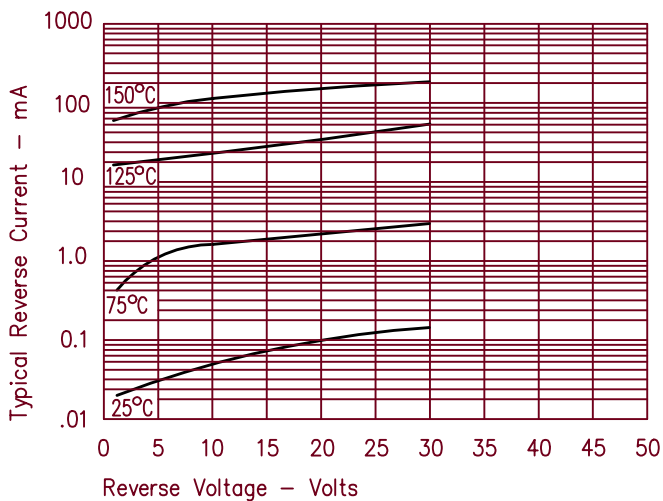


Figure 5  
Maximum Forward Power Dissipation – Per Leg

